

### **REMARKS**

Claims 1-33 remain pending in the application.

#### **Examiner Interview**

The Applicants thank the Examiner for granting and conducting an interview on August 8, 2006, and a second interview with the Examiner and the Examiner's supervisor, Mr. Wu, on August 10, 2006.

The Applicants stressed during the interview that Wagner's invention is completely directed toward asset management, with no suggestion to check anything other than the condition of assets within a shipping container. Mr. Wu stated that Wagner would be re-reviewed to verify that Wagner provides no suggestion to check anything other than the condition of assets within a shipping container. However, to stress that Applicants' invention is directed toward national security instead of asset management Applicants agreed to amend claims 1, 11 and 20 to recite reliance on national security data and a national security condition.

Moreover, Applicants and the Examiner discussed the fact that Woolley's disclosure of a track cab does **NOT** equate to or suggest application to a ship's bridge. The Applicants stressed and the Examiner failed to refute that once a hazardous cargo reaches a point where it is placed on a truck, the purpose of monitoring the hazardous cargo is diminished. Applicants' claimed features allow a hazardous cargo to be detected at a safe distance from land while still aboard a ship. The cited prior art fails to disclose or suggest the claimed features, much less the claimed features having such benefits.

#### **Allowability of Claims 10 and 19**

The Applicants again thank the Examiner for the indicating that claims 10 and 19 are allowed.

**Claims 1-3, 6-9 and 33 over Wagner**

In the Office Action, claims 1-3, 6-9 and 33 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over U.S. Patent Application Pub. No. 2004/0174260 to Wagner ("Wagner"). The Applicants respectfully traverse the rejection.

Claims 1-3, 6-9 and 33 recite at least one shipping container sensor adapted to be attached to a first shipping container to sense a national security condition of the first shipping container.

The Examiner alleged that "sensing the conditions of items within the shipping container is viewed as sensing a condition of the shipping container." (see Office Action, page 2). The Examiner alleged that "it would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that sensing the condition of the items within a shipping container would indicate the condition of the shipping container itself. For example, if all of the items within a shipping container sensed that the temperature was 100 degrees. It would have been obvious that the temperature of the first shipping container was 100 degrees." The Applicants respectfully disagree.

As Applicants pointed out during the Interviews, the Examiner allegation that sensing a condition of a shipping container is the same as sensing an item within the shipping container is simply not true. Applicants pointed out that temperatures within a shipping container are typically higher than a temperature of a shipping container in high heat conditions. For example, in the summer months the inside of a shipping container becomes hotter than the outside of a shipping container as heat is trapped inside the shipping container. This phenomenon is seen when entering a car in the summer months where the inside of a car is typically much higher than the outside of the car. Moreover, in the winter months the same is typically true, that the inside temperatures of a shipping container is typically higher than the outside temperatures as heat is again trapped inside. Thus, the Examiner's allegation that sensing a condition of a shipping container would indicate the condition of the shipping container itself is simply not true.

Moreover, Wagner's invention determines more than just temperature, as the Examiner acknowledge that Wagner disclosed monitoring of humidity of assets within a shipping container. The Examiner has failed to show how humidity that exists in the air can be monitored by monitoring a shipping container.

Moreover, the Applicants stressed during the Interview that the Examiner must consider the problem being solved when evaluating the claimed features, i.e., national security. An evaluation of obviousness must be undertaken from the perspective of one of ordinary skill in the art addressing the same problems addressed by the applicant in arriving at the claimed invention. *Bausch & Lomb, Inc. v. Barnes-Hind/Hydrocurve*, 23 USPQ 416, 420 (Fed. Cir. 1986), cert. denied, 484 US 823 (1987). Thus, the claimed structures and methods cannot be divorced from the problems addressed by the inventor and the benefits resulting from the claimed invention. *In re Newell*, 13 USPQ2d 1248, 1250 (Fed. Cir. 1989). Wagner's invention is solving problems associated with asset management, with nothing within Wagner suggesting any solution to national security.

Moreover, the Examiner alleged that "it would have been obvious that the temperature of the first shipping container was 100 degrees." However, the Examiner's statement failed to provide motivation why one of ordinary skill in the art would modify Wagner from monitoring an asset to instead monitor a shipping container, even if a shipping container condition provided an indication of a condition of an asset (which it does not as discussed above). Thus, the Examiner's rejection is improper for failing to provide motivation why one of ordinary skill in the art would modify Wagner.

Thus, Wagner fails to suggest at least one shipping container sensor adapted to be attached to a first shipping container to sense a condition of the first shipping container, much less a national security condition of the first shipping container, as recited by claims 1-3, 6-9 and 33.

Accordingly, for at least all the above reasons, claims 1-3, 6-9 and 33 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

**Claims 4 and 5 over Wagner in view of Breed**

In the Office Action, claims 4 and 5 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Wagner in view of U.S. Patent No. 6,919,803 to Breed ("Breed"). The Applicants respectfully traverse the rejection.

Claims 4 and 5 recite at least one shipping container sensor adapted to be attached to a first shipping container to sense a national security condition of the first shipping container for communication to a second shipping container.

As discussed above, Wagner fails to suggest at least one shipping container sensor adapted to be attached to a first shipping container to sense a condition of the first shipping container, much less a national security condition of the first shipping container, as recited by claims 4 and 5.

Breed appears to disclose an arrangement for monitoring an asset including an interior sensor system and a communication system to transmit information about the contents in the interior to a remote facility (See Abstract). Openings and closings of each door of each asset can be detected such that information about openings and closings of each door is transmitted to a data processing center for inclusion in a database (See col. 8, lines 45-48).

Breed communicates information about openings and closings of a door. However, Breed communicates information about openings and closings of a door with a remote data processing center **NOT** disclosing or suggesting communication of a condition of a first shipping container with a **second shipping container**, much less at least one shipping container sensor adapted to be attached to a first shipping container to sense a national security condition of the first shipping container for communication to a second shipping container, as recited by claims 4 and 5.

Thus, Wager modified by Breed would still fail to disclose or suggest disclosing or suggesting communication of a condition of a first shipping container with a second shipping container, much less at least one shipping container sensor adapted to be attached to a first shipping container to sense a national security condition of the first shipping container for communication to a second shipping container, as recited by claims 4 and 5.

Accordingly, for at least all the above reasons, claims 4 and 5 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

**Claims 11-18 and 20-27 over Wagner in view of Woolley**

In the Office Action, claims 11-18 and 20-27 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Wagner in view of U.S. Patent No. 5,774,876 to Woolley et al. ("Woolley"). The Applicants respectfully traverse the rejection.

Claims 11-18 and 20-27 recite a system and method of transmitting sensor data from a first shipping container to a second shipping container if a sensor attached to the first shipping container detects a hazard and the first shipping container is unable to transmit its sensor data to a ship's bridge.

The Office Action acknowledged that Wagner fails to disclose communication a hazard to a ship's bridge (See Office Action, page 5). The Office Action relies on Woolley to allegedly make up for the deficiencies in Wagner to arrive at the claimed features. The Applicants respectfully disagree.

The Office Action AGAIN acknowledged that Woolley discloses distributing data between a first shipping container, a second shipping container and a vehicle driver cabin (see Office Action, page 5). However, the Office Action AGAIN alleges that a driver's cabin is equivalent to a ship's bridge (see Office Action, page 5).

As discussed during the Interview and the Examiner failed to refute, a ship travels on water. A vehicle travels on land, i.e., Woolley discloses a truck. For purposes of national security, if a hazard has reached the point where it is

placed on a truck, i.e., reached land, the ability to AVOID a catastrophic crisis has already passed. However, if a hazard is detected and reported to a ship's bridge, a crisis can potentially be avoided before reaching a hazard reaches a port. Thus, a vehicle driver's cabin does **NOT** equate to a ship's bridge, as recited by claims 11-18 and 20-27. If the Examiner continues to allege that Woolley's vehicle driver cabin equates to Applicants' ship's bridge, the Examiner is respectfully requested to provide support for how the two are equivalent in that as Applicants discussed herein and during the Interview once a hazard has reached the point where it is placed on a truck, i.e., reached land, the ability to AVOID a catastrophic crisis has already passed.

The Examiner alleged that sensor data allowing evaluation of national security related to the first shipping container is viewed as an intended use. To more clearly recite that the data itself is related to national security, claims 11 and 20 are amended herein to recite national security sensor data. Thus, claims 11 and 20 clearly recite a specific type of data, i.e., national security sensor data, not an intended use of a system or method.

Moreover, the Examiner alleged that a skilled artisan would obviously include the proper sensors for monitoring specific conditions. The Examiner alleged that if national security were an issue with the items being tracked through a supply chain, the appropriate sensors would be included, such as if the system were monitoring firearms and explosives, the temperature and humidity of the shipping container would be important information. The Applicants respectfully disagree.

The Examiner alleged that evaluation of humidity would allow evaluation of national security related to the first shipping container. However, the Examiner has failed to show how evaluation of humidity would be important information to national security. If explosives were within a shipping container, an evaluation of a national security threat would require a sensor to sense if explosives were on the shipping container, not if the explosives were in a humid environment. High humidity simply indicates high humidity **NOT** providing any indication of the type of cargo, i.e., if a hazardous cargo is within a shipping

container. Thus, the Examiner's allegation that temperature and humidity would be important information for evaluation of national security is unfounded. If the Examiner continues to allege that detection of humidity can be used to detect for explosives within a shipping container, the Examiner is respectfully requested to provide support for such an allegation.

Moreover, the Examiner's allegation that if explosives were within a shipping container, an evaluation of a national security threat would require a sensor to sense humidity and temperature. However, the Examiner's allegation starts with the premise that he KNOWS what is in the shipping container, i.e., firearms and explosives. The Applicants' claimed features are directed toward a system and method of determining IF a hazard is associated with a shipping container, i.e., starts by NOT knowing if a hazard is associated with a shipping container. Thus, the Examiner's alleged system would NOT benefit national security if already knowing what is on a shipping container and simply monitoring a known hazard.

Thus, Wagner modified by Woolley would STILL fail to disclose or suggest a system and method of transmitting sensor data from a first shipping container to a second shipping container if a sensor attached to the first shipping container detects a hazard and the first shipping container is unable to transmit its sensor data to a ship's bridge, the sensor data national security data, as recited by claims 11-18 and 20-27.

A benefit of communicating a hazard associated with a shipping container to a ship's bridge is, e.g., avoiding a crisis. If any type of hazard is detected while a shipping container is still on a ship and communicated to a ship's bridge, the ship's crew can decide to direct the ship away from populated areas and avoid going to port. Avoiding populated areas and avoid going to port can potentially mean the difference between a few people getting hurt, i.e., a ship's crew, and hundreds of thousands getting hurt, i.e., a city's population. The cited prior art fails to disclose or suggest the claimed features having such benefits.

Accordingly, for at least all the above reasons, claims 11-18 and 20-27 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

**Claims 28 and 29 over Wagner in view of He**

In the Office Action, claims 28 and 29 were rejected under 35 U.S.C. §103(a) as allegedly being obvious over Wagner in view of U.S. Patent No. 6,995,667 to He et al. ("He"). The Applicants respectfully traverse the rejection.

Claims 28 and 29 recite a shipping container communication adapter to adaptively communicate with a second shipping container and a shipping container tracking system that transmits sensor data using one of a satellite communication adapter and a radio adapter, and if a transmission of the sensor data fails using one of the satellite communication adapter and the radio adapter, the shipping container tracking system transmits the sensor data using the other of the satellite communication adapter and the radio adapter.

The Examiner acknowledged that Wagner failed to disclose the inclusion of both a satellite and a radio adapter (see Office Action, page 7). However, if Wagner failed to disclose inclusion of both a satellite and a radio adapter, Wagner also fails to disclose any type of redundancy, i.e., failed to disclose or suggest a shipping container tracking system that transmits sensor data using one of a satellite communication adapter and a radio adapter, and if a transmission of the sensor data fails using one of the satellite communication adapter and the radio adapter, the shipping container tracking system transmits the sensor data using the other of the satellite communication adapter and the radio adapter, as recited by claims 28 and 29.

The Office Action relies on He to allegedly make up for the deficiencies in Wagner to arrive at the claimed features. The Applicants respectfully disagree.

He's invention is directed toward a system for tracking a geographic location of hazard substances or devices including the same (Abstract). A



shipping container is able to communicate through both a radio or Mobile Communications tower and a Satellite to convey a hazard to a tracking station (see He, Fig. 1; col. 6, lines 39-55).

Thus, He's invention appears to be directed toward tracking KNOWN hazards. However, He fails to disclose or suggest application of any of the teachings to a shipping container that is able to communicate with a second shipping container, much less to a shipping container that is able to communicate with a second shipping container that can switch between a satellite communication adapter and a radio adapter, as recited by claim 32.

The Examiner alleged that it would have been obvious to one of ordinary skill in the art that each container would be provided with various communication devices located at various positions on a shipping container and that if one communication adapter on a shipping container including a plurality of communication adapters failed, to use one of the other communication adapters which has not failed (see Office Action, page 7). Thus, the Examiner acknowledged that neither Wagner nor He disclose any type of redundancy, much less redundancy for a system and method relying on a shipping container communication adapter to adaptively communicate with a second shipping container, as recited by claims 32.

Moreover, to make up for the deficiencies in both Wagner and He, the Examiner alleged that it would have been obvious to one of ordinary skill in the art at the time of the invention that if one communication adapter on a shipping container including a plurality of communication adapters failed, to use one of the other communication adapters which has not failed (see Office Action, page 7). However, the Examiner rejection is based on the obvious modification of Wagner. The Examiner has failed to provide motivation why one skilled in the art would modify Wagner to include both a satellite communication adapter and a radio adapter. The Examiner FAILED to provide any motivation why one skilled in the art would modify Wagner to include both a satellite communication adapter and a radio adapter, much less modify Wagner to use both a satellite communication adapter and a radio adapter in a redundant manner, as recited by

claims 28 and 29. Thus, the rejection of claims 28 and 29 is improper for failing to provide motivation why one skilled in the art would modify Wagner to include both a satellite communication adapter and a radio adapter, much less modify Wagner to use both a satellite communication adapter and a radio adapter in a redundant manner, as recited by claims 28 and 29.

Moreover, "Teachings of references can be combined only if there is some suggestion or incentive to do so." In re Fine, 5 USPQ2d 1596,1600 (Fed. Cir. 1988) (quoting ACS Hosp. Sys. v. Montefiore Hosp., 221 USPQ 929, 933 (Fed. Cir. 1984)) (emphasis in original). As discussed above and during the Interview, Wagner's invention is directed toward asset management. Asset management is a non-critical application. If a tracking system is unable to determine the condition of assets while the assets are out at sea, although inconvenient, would not be disastrous since the tracking system is only concerned with determining the conditions of assets. Thus, Wagner fails to disclose a need for any type of redundancy since the non-critical application of asset management. Thus, there is no motivation to modify Wager's invention that is directed toward a non-critical application to use any type of redundancy.

Wagner in view of He fails to disclose or suggest use of any type of redundancy, much less redundancy that relies on a satellite communication adapter and a radio adapter, as recited by claims 28 and 29.

Accordingly, for at least all the above reasons, claims 28 and 29 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

#### **Claims 30 and 31 over Wagner in view of He, Breed and Woolley**

In the Office Action, claim 30 was rejected under 35 U.S.C. §103(a) as allegedly being obvious over Wagner in view of He, and further in view of Breed, with claim 31 rejected under 35 U.S.C. §103(a) as allegedly being obvious over Wagner in view of He, and further in view of Woolley. The Applicants respectfully traverse the rejection.

Claims 30 and 31 recite a shipping container communication adapter to adaptively communicate with a second shipping container and a shipping container tracking system that transmits sensor data using one of a satellite communication adapter and a radio adapter, and if a transmission of the sensor data fails using one of the satellite communication adapter and the radio adapter, the shipping container tracking system transmits the sensor data using the other of the satellite communication adapter and the radio adapter.

As discussed above, Wagner in view of He fails to disclose or suggest use of any type of redundancy, much less redundancy that relies on a satellite communication adapter and a radio adapter, as recited by claims 30 and 31.

Breed was relied on to disclose "communication using Bluetooth, Wi-Fi or other protocols" (see Office Action, page 8).

Woolley was relied on to disclose communication with a vehicle driver cabin. However, as discussed above, a vehicle driver cabin does **NOT** equate to a ship's bridge.

Thus, Wagner in view of He, Breed and Woolley still fails to disclose or suggest any type of redundancy, much less redundancy that relies on a satellite communication adapter and a radio adapter, as recited by claims 30 and 31.

Accordingly, for at least all the above reasons, claims 30 and 31 are patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

#### **Claim 32 over He in view of Wagner**

In the Office Action, claim 32 was rejected under 35 U.S.C. §103(a) as allegedly being obvious over He in view of Wagner. The Applicants respectfully traverse the rejection.

Claim 32 recites a satellite transmitter on a top of a shipping container housing, a radio transmitter on a side of the shipping container housing, the radio transmitter being able to communicate with a second shipping

container and a Global Positioning System (GPS) satellite receiver on the top of the shipping container housing.

The Examiner alleged that He discloses that various transmitters may be located at various locations on the shipping container at col. 3, lines 28-43, col. 6, lines 39-45 and col. 10, line 64-col. 11, line 13 (see Office Action, page 9). However, a review of He's entire disclosure at best discloses mounting a tracking device proximate to a container configured to hold hazardous materials at col. 3, lines 28-43. He at col. 6, lines 39-45 and col. 10, line 64-col. 11, line 13 simply discloses the use of various types of communications **NOT** detailing WHERE on a shipping container to place the various types of communications. Even the Examiner own comments of what He discloses fails to show that He discloses WHERE on a shipping container to place the various types of communications. He fails to disclose or suggest WHERE on a shipping container to place the various types of communications, much less disclose or suggest a satellite transmitter on a top of a shipping container housing, a radio transmitter on a side of the shipping container housing, the radio transmitter being able to communicate with a second shipping container and a Global Positioning System (GPS) satellite receiver on the top of the shipping container housing, as recited by claim 32.

Moreover, the Examiner alleged that it would have been obvious to modify He with a radio transmitter being able to communicate with a second shipping container (see Office Action, page 10). However, "The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification." In re Fritch, 23 USPQ2d 1780, 1783-84 (Fed. Cir. 1992). In re Mills, 16 USPQ2d 1430 (Fed. Cir. 1990). The reason He fails to disclose a radio transmitter being able to communicate with a second shipping container is that He fails to disclose use of a shipping container that would have difficult communicating a hazardous condition to a monitoring station. Thus, the Examiner's modification of He is improper since He's system lacks a need to be modified that would benefit from such a modification.

The Examiner acknowledged that He fails to disclose a radio transmitter to communicate with a second shipping container (see Office Action, page 10). However, the complete limitation that He failed to disclose is a radio transmitter on a side of the shipping container housing, the radio transmitter being able to communicate with a second shipping container. The Examiner relied on Wagner to allegedly make up for the deficiencies in He to arrive at the claimed features. The Applicants respectfully disagree.

Wagner is relied on to disclose a radio adapter to facilitate communication between a first shipping container and a second shipping container. However, Wagner fails to provide any disclosure or suggestion, like He, of WHERE to place communication devices on a shipping container. Wagner fails to disclose or suggest use of a radio transmitter on a side of the shipping container housing, the radio transmitter being able to communicate with a second shipping container, much less use of a satellite transmitter on a top of a shipping container housing, a radio transmitter on a side of the shipping container housing, the radio transmitter being able to communicate with a second shipping container and a Global Positioning System (GPS) satellite receiver on the top of the shipping container housing, as recited by claim 32.

Thus, He in view of Wagner would still fail to disclose or suggest a satellite transmitter on a top of a shipping container housing, a radio transmitter on a side of the shipping container housing, the radio transmitter being able to communicate with a second shipping container and a Global Positioning System (GPS) satellite receiver on the top of the shipping container housing, as recited by claim 32.

A benefit of shipping container comprising a satellite transmitter on a top of a shipping container housing, a radio transmitter on a side of the shipping container housing, the radio transmitter being able to communicate with a second shipping container and a Global Positioning System (GPS) satellite receiver on the top of the shipping container housing is, e.g., the ability to maximize communications even during transit when shipping containers are stacked deep within a cargo hold of a ship. As discussed above, allowing

shipping containers to communicate with one another allows communicates from a shipping container with a remote entity that otherwise would not be possible with direct communications. Moreover, a shipping container that uses multiple communication mediums allows dissemination of information if any one communication mediums is unable to communicate with a remote entity. The cited prior art fails to disclose or suggest the claimed features having such benefits.

Accordingly, for at least all the above reasons, claim 32 is patentable over the prior art of record. It is therefore respectfully requested that the rejection be withdrawn.

**Conclusion**

All objections and rejections having been addressed, it is respectfully submitted that the subject application is in condition for allowance and a Notice to that effect is earnestly solicited.

Respectfully submitted,



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